

June 25, 2021

Mr. Kumud Pyakuryal EPA Nebraska Site Assessment Manager U.S. Environmental Protection Agency, Region 7 11201 Renner Boulevard Lenexa, Kansas 66219

Subject: Pre-CERCLA Screening Report

2400 Central Avenue Former Dry Cleaner, Kearney, Nebraska U.S. EPA Region 7 START 5, Contract No. 68HE0719D0001

Task Order No. 19F0076.006

Task Monitor: Kumud Pyakuryal, EPA Nebraska Site Assessment Manager

Dear Mr. Pyakuryal:

Tetra Tech, Inc. submits the attached Pre-Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Screening (PCS) report regarding the 2400 Central Avenue Former Dry Cleaner site in Kearney, Nebraska. If you have any questions or comments, please call me at (816) 412-1788.

Sincerely,

David Zimmermann

START Project Manager

Ted Faile, PG, CHMM START Program Manager

Enclosures

PRE-CERCLA SCREENING REPORT 2400 CENTRAL AVENUE FORMER DRY CLEANER KEARNEY, NEBRASKA

Superfund Technical Assessment and Response Team (START) 5 Contract Contract No. 68HE0719D0001, Task Order 19F0076.006

Prepared For:

U.S. Environmental Protection Agency Region 7 Superfund Division 11201 Renner Boulevard Lenexa, Kansas 66219

June 25, 2021

Prepared By:

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CONTENTS

Section	<u>on</u>		<u>Page</u>
1.0	INTR	ODUCTION	1
2.0	SITE	LOCATION AND BACKGROUND	2
	2.1	SITE LOCATION AND DESCRIPTION	2.
	2.2	SITE HISTORY	
	2.3	CURRENT LAND USE	
	2.4	GEOLOGY AND HYDROLOGY	
	2.5	WASTE CHARACTERISTICS	
		2.5.1 Tetrachloroethene	4
		2.5.2 Trichloroethene	5
		2.5.3 1,2-Dichloroethene	5
		2.5.4 1,1-Dichloroethene	5
		2.5.5 Vinyl Chloride	5
3.0	SITE	SCREENING ACTIVITIES	6
	3.1	FIELD RESEARCH OF SITE OPERATIONS	6
	3.2	TEMPORARY WELL SAMPLING	6
	3.3	QUALITY CONTROL SAMPLES	7
	3.4	DEVIATIONS FROM THE QUALITY ASSURANCE PROCEDURE PLAN	7
4.0	ANA	LYTICAL DATA SUMMARY	8
5.0	PATI	HWAY EVALUATION	9
	5.1	GROUNDWATER MIGRATION PATHWAY	9
	5.2	SURFACE WATER MIGRATION PATHWAY	
	5.3	SOIL EXPOSURE AND SUBSURFACE INTRUSION PATHWAY	10
	5.4	AIR MIGRATION PATHWAY	
	5.5	POTENTIAL HUMAN AND ECOLOGICAL TARGETS	10
6.0	SUM	MARY AND CONCLUSIONS	11
7.0	REF	ERENCES	12

CONTENTS (Continued)

APPENDICES

Appen	<u>dices</u>
A	FIGURES
В	LOG BOOK
C	TRANSMITTAL OF SAMPLE ANALYSIS RESULTS FOR ASR #8823
D	PHOTO LOG
E	PRE-CERCLA CHECKLIST/DECISION FORM

TABLES

<u>Table</u>	<u>Pag</u>	<u>e</u>
1	DPT TEMPORARY WELL SAMPLE SUMMARY	7
2	VOLATILE ORGANIC COMPOUNDS IN GROUNDWATER	8

1.0 INTRODUCTION

The U.S. Environmental Protection Agency (EPA) Region 7 Superfund Division tasked Tetra Tech, Inc., (Tetra Tech) Superfund Technical Assessment and Response Team (START), under contract number 68HE0719D0001, Task Order 19F0076.006, to conduct a Pre-Comprehensive Environmental Response, Compensation, and Liability Act (Pre-CERCLA) Screening (PCS) of the former dry cleaner site at 2400 Central Avenue (the site) in Kearney, Nebraska.

Given the long history of dry cleaning operations at the site, a PCS of the site was warranted to investigate likely releases of volatile organic compounds (VOC) (probably chlorinated solvents) to groundwater. The purpose of these PCS activities was to determine whether any threats to human health or the environment exist as a result of releases to groundwater from a former dry cleaner at the site. Pre-CERCLA screening activities accorded with EPA Office of Land and Emergency Management (OLEM) Directive 9200.3-107 *Pre-CERCLA Screening Guidance* (EPA 2016).

PCS tasks included:

- Collection of groundwater samples from direct-push technology (DPT) temporary wells near the former dry-cleaning facility
- Review of existing and relevant documents associated with the site.

David Zimmermann was the START Project Manager, and the EPA Region 7 Site Assessment Manager was Kumud Pyakuryal.

2.0 SITE LOCATION AND BACKGROUND

Section 2.0 specifies the location of the site and describes it, conveys site geology and hydrogeology, and summarizes waste characteristics of possibly present contaminants at the site.

2.1 SITE LOCATION AND DESCRIPTION

The City of Kearney (City) is on the north bank of the Platte River in Buffalo County, Nebraska (see Appendix A, Figure 1), and according to the 2019 census estimate, had a population of 33,867 (U.S. Census Bureau 2020). The City supplies potable water to the population; however, those residing outside of city limits obtain their water from private wells. Kearney is along the east-west running Union Pacific Railroad main line, immediately north of Interstate 80 and about 1 mile north of the Platte River. The local economy is based on tourism, a regional medical center, the University of Nebraska at Kearney, and printing, manufacturing, transportation, and distribution facilities (Kearney, Nebraska, Development Council 2006). The City appears on a 7.5-minute topographic quadrangle map of Kearney, Nebraska (U.S. Geological Survey [USGS] 2017).

The site is at 2400 Central Avenue in Kearney, Nebraska, and encompasses approximately 0.26 acre (see Appendix A, Figure 2). Global Positioning System (GPS) coordinates at the approximate center of the site are 40.699543 degrees (°) north latitude and 99.082098° west longitude. The site is bounded to the north by a tattoo parlor, to the east by Central Avenue and an art museum beyond, to the south by 24th Street and a movie theater with possible apartments above beyond, and to the west the fraternal order of Eagles.

2.2 SITE HISTORY

Historical Sanborn maps show that in 1924, the site hosted a filling station and auto repair shop. Review of historical city directories identified dry cleaning services at the site under the name "One-Hour Martinizing" beginning in 1968, with a brief change of the name to "Quality Cleaners" from 1982 to 1984. The site returned to the previous name of "One-Hour Martinizing" starting in 1985 until 1991, when the name was changed again to "Quality Cleaners" until the apparent end of dry cleaning operations in 2003. State records document removal of two small underground storage tanks (USTs) in 1990 from the site. The documents mention possibility of one other tank remaining at the site. It is unclear from the documents if the tanks were related to previous operations at the site of a filling station or dry cleaner (Nebraska Department of Environment and Energy [NDEE] 2020).

2.3 CURRENT LAND USE

Buffalo County property records indicate that currently, the site is under private ownership for commercial purposes. During the sampling event at the site, START observed multiple commercial uses of the site including a photography studio, beauty salon, and a drive-through taco stand. Several more unmarked spaces seemed evident on the site, but whether these were occupied was unclear.

2.4 GEOLOGY AND HYDROLOGY

Kearney is in the southern part of the County where the Wood River valley and the Platte River valley join, creating an alluvial river valley about 8 to 10 miles wide. The Platte and Wood Rivers flow parallel in the combined valley but do not join (U.S. Department of Agriculture [USDA] 1974). Soils in the vicinity are classified as the Hord soil loam terrace, having 0- to 1-percent slope. These are deep, nearly level, well-drained soils that form on stream terraces. Generally north and northwest of the City, Holdrege-Hall silt loams have developed on loess uplands, while east of town Hall silt loams are present (USDA 2019).

Buffalo County is in the central Nebraska Loess Hills portion of the Central Great Plains. The northern two-thirds of Buffalo County consists of nearly level upland areas surrounded by extensive areas of steeper, dissected, rolling loess hills. Quaternary loess and alluvium overlie sands and gravels of the Ogallala Group, which forms the High Plains aquifer (Maher, Engelmann, and Shuster 2003). The alluvial sands and gravels yield large quantities of good quality water. The Ogallala Group consists of complex deposits of sand, silt, clay, and gravel interbedded with lime- or silica-cemented sandstone (University of Nebraska- Lincoln [UNL] 1998). In the upland areas, the Ogallala is the chief source of water, with wells generally 150 to 300 feet deep. Along the Platte River, wells produce from the river alluvium and are 10 to 80 feet deep (USDA 1974). Groundwater flow in the Platte River Valley around Kearney is generally east-northeast, following the flow direction of the river (UNL 1980).

The City Utilities Department provides water to 30,919 residential customers through 9,314 connections. Potable water sources for the City are two well fields outside of city limits containing a total of 24 active wells (Safe Drinking Water Information System 2021). One well field is approximately 2 miles east of the City, and the other is approximately 6 miles northwest of the City. In the well field east of the City, 15 active wells are installed to depths between 59 and 69 feet below ground surface (bgs) and have static water levels approximately 3 to 6 feet bgs. In the well field to the northwest, nine active wells are as deep as 300 feet bgs, with static water levels approximately 100 feet bgs. Based on data from local registered

wells, the static water level at the site is believed to be between 16 and 19 feet bgs (Nebraska Department of Natural Resources [NDNR] 2021a).

Records document 12 additional wells within the City—all listed as inactive, with use of them discontinued because they did not produce enough water to keep pace with growth of the City. Most of these wells are plugged; however, a few are still used for irrigation of local parks in the area. None of the wells are connected to the distribution system.

Private wells are allowed within the City; however, when a property owner requests a building permit or when a loan company requires connection as a condition for a mortgage, the City requires connection of the property to city water and sewer if availability of those utilities is within 300 feet of the property (Tetra Tech 2006). The registered private well closest to the site is approximately 0.75 mile south of the site (NDNR 2021b).

2.5 WASTE CHARACTERISTICS

This section discusses waste characteristics of possibly present contaminants at the site.

2.5.1 Tetrachloroethene

Many dry-cleaning operations during the mid-late 1900s used tetrachloroethene (PCE). PCE is a chlorinated solvent with an ether-like odor, and in addition to utilization as a dry-cleaning agent, PCE is used as a degreaser for metal parts (Agency for Toxic Substances and Disease Registry [ATSDR] 2020). PCE was introduced as a dry-cleaning solvent in 1934, and by 1948 had replaced carbon tetrachloride as the major chlorinated dry-cleaning solvent used in the United States (petroleum solvents still dominated overall). By 1962, dry cleaning operations accounted for 90 percent of the PCE used in the United States, with peak use occurring in 1980 (State Coalition for Remediation of Drycleaners 2007). At one time, PCE had been mixed with grain protectants and certain liquid grain fumigants, but this application was no longer approved by 1980 (Meister Publishing Company 1980). In successive dechlorinations, PCE degrades to trichloroethene (TCE), which degrades to the *cis* and *trans* isomers of 1,2-dichloroethene (DCE), and to 1,1-DCE. These daughter products eventually degrade to vinyl chloride. PCE has low to moderate mobility in soil and may leach slowly to groundwater. PCE is denser than water and tends to be found at greater depths with increasing distance from a source area if released to the environment. Its solubility in groundwater is slight (0.15 grams per liter [g/L]) at 25 degrees Celsius (°C), and its specific gravity is 1.62 (Centers for Disease Control and Prevention 2019). PCE tends to accumulate at

greater depths with increasing distance from the source area. Prolonged exposure to PCE may cause vision changes and neurobehavioral effects.

2.5.2 Trichloroethene

TCE is a nonflammable, colorless liquid with a somewhat sweet odor and a sweet, burning taste. It is used mainly as a solvent to remove grease from metal parts, but it is also an ingredient in adhesives, paint removers, typewriter correction fluids, and spot removers. TCE is not thought to occur naturally in the environment. However, it has been found in underground water sources and many surface waters as a result of manufacture, use, and disposal of the chemical (ATSDR 2018). The *cis-* and *trans-* isomers of 1,2-DCE, as well as 1,1-DCE, are common degradation products from TCE. These daughter products eventually degrade to vinyl chloride.

2.5.3 1,2-Dichloroethene

1,2-DCE is a highly flammable, colorless liquid with a sharp, harsh odor. It is used to produce solvents and in chemical mixtures. Very small amounts of 1,2-DCE in air (about 17 parts per million [ppm]) are detectable by odor; either or both the *cis* and *trans* isomers can be present (ATSDR 2018).

2.5.4 1,1-Dichloroethene

1,1-DCE is an industrial chemical not found naturally in the environment. It is a colorless liquid with a mild, sweet smell. It is also called vinylidene chloride. 1,1-DCE is used to make certain plastics, such as flexible films like food wrap, and in packaging materials. It is also used to make flame-retardant coatings for fiber and carpet backings, and it is in piping, coating for steel pipes, and adhesives (ATSDR 2018). Anaerobic bacteria break down 1,1-DCE to vinyl chloride in the environment via reductive dechlorination.

2.5.5 Vinyl Chloride

Vinyl chloride is a colorless gas at room temperature. Vinyl chloride exists in liquid form if kept under high pressure or at low temperatures. It burns easily and is not stable at high temperatures. It has a mild, sweet odor. It is a manufactured substance that does not occur naturally. It can form from breakdown of other substances such as PCE and TCE. Vinyl chloride is used to make polyvinyl chloride (PVC), which is used to make a variety of plastic products, including pipes, wire and cable coatings, and packaging materials. Vinyl chloride is also known as chloroethene, chloroethylene, and ethylene monochloride (ATSDR 2018).

3.0 SITE SCREENING ACTIVITIES

This section discusses PCS activities at the site during April 21, 2021, when START members Thomas Kaley and Seagull Environmental Technologies, Inc. (Seagull) DPT operator Quan Do conducted PCS sampling activities. Unless otherwise noted in this report, sampling and analytical procedures followed standard operating procedures (SOP) specified in the approved, site-specific, Quality Assurance Project Plan (QAPP) (Tetra Tech 2020). Sample locations were selected around the site, with focus on downgradient locations. All samples were collected within the right of way closest to the footprint of the former dry cleaner.

Groundwater samples were labeled and packaged accordingly, and were placed in a cooler maintained below a temperature of 4 degrees Celsius (°C) from time of collection until submittal to the laboratory. The field logbook is in Appendix B. All samples were delivered in person to the EPA Region 7 laboratory in Kansas City, Kansas, for analysis under Analytical Services Request (ASR) 8823.

3.1 FIELD RESEARCH OF SITE OPERATIONS

START reviewed historical documents at the local library to determine the time span of dry cleaning operations at the site. The review led to conclusion that dry cleaning operations had occurred at the site from 1968-2003, approximately 35 years.

3.2 TEMPORARY WELL SAMPLING

Groundwater samples were collected from temporary wells (TW) at four locations around the site—one south, two east, and one north (background sample). From north to south, temporary well identifications are TWS-18, TWS-20, TWS-19, and TWS-17.

Collection of groundwater samples proceeded by use of a Geoprobe® Screen Point 16 sampling apparatus containing a Geoprobe reusable stainless-steel screen. At each sampling location, the sampler was advanced to approximately 20 feet bgs, and the screen was exposed to the aquifer between 16 feet bgs (top of groundwater) and 20 feet bgs. After deployment of the screen, approximately 1 gallon of water was purged through disposable polyethylene tubing by use of a check valve placed at the bottom of the tubing, and thereafter, a sample was collected. Groundwater samples were collected into three 40-mL vials, each preserved with hydrochloric acid (HCl) for VOCs analysis. Following sampling at each location, the groundwater sampler and rods were decontaminated by application of a tap water and Alconox wash and tap water rinse, and all temporary wells were plugged with bentonite from bottom of

hole to ground surface. New tubing was used at each location. Any disturbance to surface materials was patched with appropriate material to match existing conditions.

Table 1 summarizes groundwater samples collected from temporary wells.

TABLE 1

DPT TEMPORARY WELL SAMPLE SUMMARY 2400 CENTRAL AVENUE FORMER DRY CLEANER SITE KEARNEY, NEBRASKA

Tomporory Well	Sample	EPA Sample	Sample	Comple	Geographic Location		
Temporary Well Number	Depth	Number	Date	Sample Time	North	West	
_ (()	(ft bgs)	1 (0211001			Latitude	Longitude	
TWS-17	16-20	8823-20		17:30	40.699418	-99.081942	
TWS-18	16-20	8823-21	4/01/01	18:20	40.699925	-99.081741	
TWS-19	16-20	8823-18	4/21/21	16:35	40.699528	-99.081750	
TWS-20	16-20	8823-19		17:00	40.699619	-99.081751	

Notes:

DPT Direct-push technology

EPA U.S. Environmental Protection Agency

TWS Temporary Well Sample ft bgs Feet below ground surface

3.3 QUALITY CONTROL SAMPLES

A laboratory-prepared trip blank accompanied samples to the laboratory, and was analyzed to detect contamination possibly introduced during transportation of the containers and samples. Also, one equipment rinsate blank sample was analyzed to detect contamination possibly introduced from the DPT shoe, and one field blank sample was prepared and analyzed to detect contamination possibly introduced from ambient conditions at the site.

3.4 DEVIATIONS FROM THE QUALITY ASSURANCE PROCEDURE PLAN

During the sampling event on April 21, 2021, the location of TWS-18 (for background sampling) was to be northwest of the site; however, while drilling TWS-18 at that northwest location, and having penetrated the initial layer of concrete, personnel encountered another layer of concrete. This induced a decision to move the location for background sampling to Central avenue, north of the site. No other significant deviation from the QAPP occurred. Minor deviations did not adversely affect results of the PCS.

4.0 ANALYTICAL DATA SUMMARY

Soil and groundwater samples were submitted to the EPA Region 7 laboratory for analysis for VOCs. The analytical data package for ASR 8823 is in Appendix C.

Groundwater Sampling Results

PCE, commonly associated with dry cleaners, was detected in groundwater samples from wells TWS-19 and TWS-20. PCE was detected at 15 and 62 micrograms per liter (μ g/L), respectively, in samples collected from TWS-19 and TWS-20—exceeding its federal maximum contaminant level (MCL). *Cis*-1,2-DCE was detected in wells TWS-19 and TWS-20 at 2.4 and 1.2 μ g/L, respectively. TCE was also detected in TWS-20 at 1.2 μ g/L. TWS-19 and TWS-20 were approximately 20 feet from the northeast and southeast corners of the site, respectively.

The common laboratory contaminant chloroform was reported at concentrations of 1.4 and 5.2 μ g/L in samples from TWS-17 and TWS-18, respectively. No other volatiles were detected in samples collected at the site. Table 2 lists VOCs detected in groundwater samples from the site.

TABLE 2

VOLATILE ORGANIC COMPOUNDS IN GROUNDWATER
2400 CENTRAL AVE FORMER DRY CLEANER SITE
KEARNEY, NEBRASKA

Temporary Well Number	Depth	-		cis-1,2- DCE	PCE	TCE			
1 0	(ft bgs)	Number		Concentration (µg/L)					
Federal Maximum Contami	80	70	5	5					
TWS-17	16-20	8823-20	1.4	1.0 U	1.0 U	1.0 U			
TWS-18	16-20	8823-21	5.2	1.0 U	1.0 U	1.0 U			
TWS-19	16-20	8823-18	1.0 U	2.4	15	1.0 U			
TWS-20	16-20	8823-19	1.0 U	1.2	62	1.2			
Quality Assurance/Quality Control									
Rinsate Blank	NA	8823-25	1.0 UJ	1.0 U	1.0 U	1.0 U			
Field Blank	NA	8823-28-FB	1.0	1.0 U	1.0 U	1.0 U			
Trip Blank	NA	8823-29-FB	1.0 UJ	1.0 U	1.0 U	1.0 U			

Notes:

Value in boldface exceeds federal maximum contaminant level.

NA Not applicable

TWS Temporary well sample

U Not detected at or above the reporting limit listed at the immediate left

UJ Not detected at or above the estimated reporting limit listed at the immediate left

5.0 PATHWAY EVALUATION

This section describes migration pathways of groundwater, surface water, soil exposure, and air, and identifies obvious potential human and ecological targets.

5.1 GROUNDWATER MIGRATION PATHWAY

Kearney is on Platte River alluvial sands and gravels, and groundwater is used as the potable water supply by both the municipal Public Water Supply (PWS) and numerous private residences in the area. Consequently, groundwater is the most likely pathway for contaminant exposure. Most residents of the City of Kearney are connected to the PWS; however, several neighborhoods along the eastern edge of the city limits lack city water lines. An unincorporated area, Canal Heights in the northwestern Kearney area, does not appear to be downgradient of known industrial facilities. However, wells in this area may be producing from the Ogallala Group, and groundwater flow in this area could be influenced by the Wood River to the north, not just the Platte River to the south. In that event, upgradient potential source areas could be present south of the Wood River.

NDNR records indicate that static water levels in registered domestic wells in the northwestern part of the City (topographically higher) are about 80 feet bgs; but in the low-lying southern and northeastern areas, water levels range from 12 to 25 feet bgs. The areas hosting shallow wells and groundwater levels would be more vulnerable to contamination.

The site is in the north downtown area of the City, upgradient of commercial buildings. Based on analytical results from groundwater samples, some degree of contamination is present that potentially poses impact on groundwater quality in private wells downgradient of the site.

5.2 SURFACE WATER MIGRATION PATHWAY

The City is between the Wood River and the Platte River in the area where the two river valleys join. Most of the northwestern portion of the City is hilly (loess bluff), with drainage both south toward the Platte River and north toward the Wood River. Southeast of this bluff, the land gently slopes east-southeast along the Platte River valley, with drainage generally toward the Platte River. Drainage in developed and agricultural areas has commonly been channelized into man-made ditches rather than natural streams. The north channel of the Platte River is about 0.5 mile south of Kearney, between the City and Interstate 80. The main braided channel of the Platte River is about 0.5 mile south of the Interstate. Wetlands are present along the Platte River (USGS 2006). Because of the sandy alluvial soils,

general lack of perennial surface water in the Kearney area, and distance from the site to surface water, contaminants along this pathway are not likely to impact the Kearney area.

5.3 SOIL EXPOSURE AND SUBSURFACE INTRUSION PATHWAY

Based on presence of volatile contaminants in groundwater at the site, vapor intrusion is a potential concern at businesses downgradient of the site. Primarily businesses, parking lots, and an art museum to the east surround the site. Potential targets associated with the subsurface intrusion component of this pathway include workers downgradient of the site. Based on results of environmental sampling, this pathway possibly poses a threat to workers in nearby structures.

5.4 AIR MIGRATION PATHWAY

Air sampling was not included with the PCS because a release to ambient air is unlikely.

5.5 POTENTIAL HUMAN AND ECOLOGICAL TARGETS

Human receptors would be residents, workers, and visitors to the City. Human receptors could also include individuals in the downgradient area using groundwater for drinking water. Because a release has been documented, businesses over a possibly present plume may be subject to vapor intrusion. Based on analytical results from groundwater samples, a release has been documented at the site posing potential for impact on human receptors. The site PCS Checklist/Decision Form is in Appendix E.

6.0 SUMMARY AND CONCLUSIONS

Objectives of the PCS were to: (1) review existing and relevant documents associated with the site, and (2) collect groundwater samples for analysis to determine if a release has occurred at the site.

Based on the documented time span of dry cleaning operations at the site (35 years under names 1-Hour Martinizing and Quality Cleaners), use of PCE and TCE was likely. Groundwater samples collected from temporary wells near the site yielded PCE at 15 and 62 µg/L—above the federal MCL for groundwater of 5 µg/L. TCE and *cis*-1,2-DCE were also detected in samples collected near the site, but at concentrations below their MCLs. Chloroform, a common laboratory contaminant, was detected in two of four samples, and in the field blank sample, at levels ranging from 1.0 to 5.2 µg/L. Based on the time span of dry cleaning operations and detections of PCE in groundwater near the site at concentrations above its federal MCL, further CERCLA assessment appears warranted.

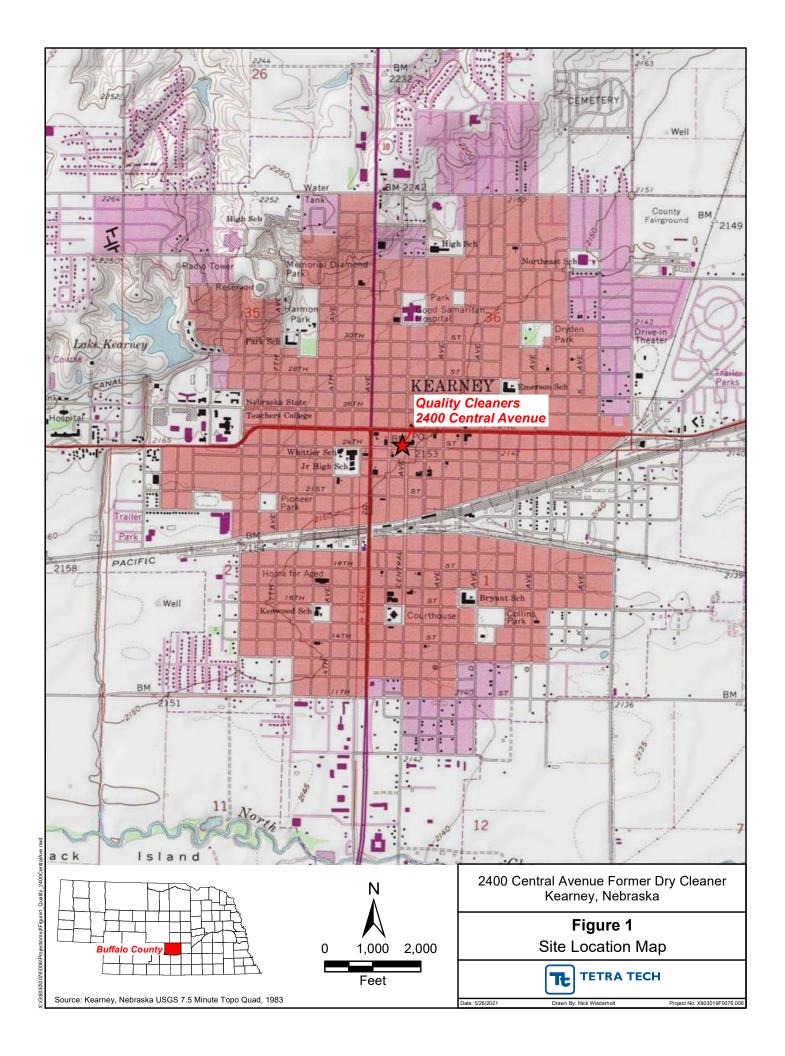
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APPENDIX A FIGURES







DPT groundwater sample location Approximate site boundary

Direct-push technology

TWS Temporary well sample

Kearney, Nebraska

Figure 3 Sample Location Map



Source: Buffalo County, NE, gWorks, parcel data, 2020; Google Earth Imagery Service via a licensed connection, 2020



Approximate site boundary

DPT Direct-push technology

TWS Temporary well sample

Source: Buffalo County, NE, gWorks, parcel data, 2020; Google Earth Imagery Service via a licensed connection, 2020

PCE Tetrachloroethene

TCE Trichloroethene

Note: All results in

micrograms per liter

Figure 4

Sample Results Map



APPENDIX B

LOG BOOK

Six Dry Cleaner Sites - Kearneys 2 Six Dry Cleaner Sixes-Kearney 1 1900 STM Kaley Leaving Office fol 5900 STM Kaley at Local Kearney Library to Research historical Silcetole 1500 STAN Kally altivat in city of and their length of operation. Awaiting Local ons. began walking boding 1210 Research of historic City directories 1530 Met city light-of-Way cooldinator Mike Savin and walked the sites Showed all dry cleaners in question for 2009 Central and 2013 Central present at some time in the directories. Avenue as well as the 813 W. 25th Litery Cloanels at 2013 Central Ave. Street Site to talk and go over operated from as easily as 1850-1968. 1630 Paintel out Locations for groundwater Modern Cleaners @ 2009 Central Ave Op-Johnson Cleaners at 123 W. 2184 Sampling Locations at previously mentioned opporated from as early as 1950-1976. Sites: 1700 STM Kaley finished for the day Kearney Loundry and Dry Cleaning at 15 W. 2345+ operated from 1952-1963. Liberty Cleaners at 802 W. 25th oper-- ated at 1964-2018 and a cleaner named College Cleaners Offerated at the same Location as early as 1950. Quality Cleaners at 2400 Central Ave. operated 04/19/2 from 1968-2003 under the names one-HOUT MOTHETZING and Duality Cleanels 325 STM Kaley and Seaguil DPT operator 50 arrive at 802 N. 25th, Former Liberty cleaners, walk site.

104/20/14:X Dry Clearer Sides - Kearnay 04/018 1x Dry Claiment 5:405 - Kearney 0750 STM Kaling and Do, on-site 1340 Well dilled along as side of Former dia cleanor footprint produced at 802 W. 25th. Propering to drill no water at 20 feet TWS-24 rear University. 0810 TWS-24 Preduced no Water at 1415 Well dilled on the Southwest side of the former dle alener also produced no 0815 Mobilized to 2013 2 2007 CONTral Water at 24 Teet. Descision was mode to go to 30 feet on 300th 205+ Well. 0830 on-site at TWS-8, Preparing to drive 1435 NO Water was encounted at 3054 0835 Had J. Frenty gotting Post conspare On the Southeast Well. 1455 Arrive on-570 at 2013 Cental at TWS & descision made to mave to AVE. FORMERY Liberty James, Walk 5He area further east with no concerte. and prefice to don't TWS-3. 9845 Resistance at 3ft depth at pew 2000 1515 Sample 2873 1 Colected With MS/15D tion, called Mike Sawin with the city 1545 Sample 16623-2) COHKHOOL From to ass st with new location of TWS-8 0900 MCI mother of Filer new our Location TWS-6. 1615 Collected Sample (8623-3) From TWS-7 ton on Railrand one. Walked Johnson 1650 Collected Sample 8823-4 From TWS-1 Claners Sixe with Mike from the city 9930 Reathernal +odfin 50+ws-8. Reaction Vith preservative after collection Collected Sample 8823-7 From TWS-8 cause tubbles in on you 1725 Collected Samples (5823-5) and (5823-5-5) 0955 Boan drilling TWS-804 collected Sample 8823-8 From From TWS-2 1740 Finished Patching hol, Leaving Gite TWS-4 1025 Began DGIIIIn TWS-5 1040 Collected Sample 8623-9 Fram for the day 94/20/21 TWS-5 055 Mobilize to Johnson chambers

6 04/21/21 5:X Drs Cleaner Sites-Kearney 04/21/21 SIX Dry Cleaners in Kearney? Site at 123 W 2157 St. TWS-13 1103 Began doilling Tws-12 1550 Mobalized to Quality cleaners 1120 Collected Samples \$823-10 and 04 2409 Central Ave 18823-10-FD from TWS-12 1555 Began drilling TWS-19 1635 Colleged Sample 7823-18 from 1200 Cottected Sample 18823-12 from TWS-11 TWS-19 1235 collected Somple 75823-13 From 1647 Began drilling IWS-20 1700 Collected Sample [8823-19] From TWS-10. 1305 COILCHOOL SOMPLE 18823-14) From TWS-20 TWS-9. 1715 Began drilling TWS-17 1730 collected Somple (8823-20) from 1310 Patching asphalt and mobilizing + a Kearney Lawnorly Site at 15 W. 23rd St. JWS-17 1323 Begin drilling TWS-16 1745 Began drilling TWS-18 1750 TWS-16 had another Layer of conclete 335 No Waser Encountered at TWS-16 Under the Sufface Layer, decision was made to a depth of 20ft to move sample to contral all NOPTY 1345 Boy'n drilling TWS-14 Of the Former dily cleaner for background 1355 Had difficulty extending Screen, Pulled SOF and youd another scheen as the first spen Sample. 1805 Begin drilling new Location for TWS-8 was packed with sandard silt 1410 Collected Sample (4523-15) from Collected Sample 8823-21) Scom TWS-14 at depth of 24 ft new Location for TWS-14, 1442 Began drilling TW5-15 1840 Finished patching Concrete, cleaned 1455 CoTlected Campie 18623-16 from all the equiptment, Leaving Sixe for TWS-15 the day. 1520 Began driling TWS-13 1535 Collected Sample 18823-17 Com

04/20/21 Six dry cleaner 3/105 - Kearney 9 8 64/22/21 SIX DIG cleaner Sites - Xeorney 0730 STM Kaley and Do mabilized from Stayed behind to take overview Photographs De Rach Location. hotel to Kearney Laundry Site at 15 1035 STIM Hailey Finished With Overview W. 25d Street to assempt TWS-16 at 30 ft in hopes of finding water Thotas mobilizing back to office 0745 Started Ninn TWS-16 1530 Arrive back at office 0755 Encountered water at approximately 25 1630 Finish Unpacking equipment, seturning Penter and Amished for the down Feet 0800 Collected Sample 18823-22 From TWS-16 Mobilized to Liberty Classes Site at 902 W. 25th St to autompt to evanioner Water up to your 0920 Beran Drilling TWS-22 0825 COTTECTED FIELD BLONK Sample 18923-20-FB 0845 Collected MS/MSD Sample 18925-23 From TWS - 22. GW er countered at approximately 36-38 feet A Hempting to collex one mole sample from TWS-21 0920 collected Sample 18823-24 from TWS-21 0945 Collicted Pinesate Blank Sample 18923-25 5823-29-FB Henr Sample 1000 STM DO MOBILIZED back to office after decoring equipment. STM Karey Rite in the Rain

APPENDIX C

TRANSMITTAL OF SAMPLE ANALYSIS RESULTS FOR ASR #8823

United States Environmental Protection Agency Region 7 300 Minnesota Avenue Kansas City, KS 66101

Date: 05/10/2021

Subject: Transmittal of Sample Analysis Results for ASR #: 8823

Project ID: KPKNE6DC

Project Description: Six Dry Cleaner sites

From: Margaret E.W. St. Germain, Chief

Laboratory Technology & Analysis Branch

Laboratory Services and Applied Sciences Division

To: Kumud Pyakuryal

SEMD/AERR

Enclosed are the analytical data for the above-referenced Analytical Services Request (ASR) and Project. These results are based on samples as received at the Science and Technology Center. The Regional Laboratory has reviewed and verified the results in accordance with procedures described in our Quality Manual (QM). In addition to all of the analytical results, this transmittal contains pertinent information that may have influenced the reported results and documents any deviations from the established requirements of the QM.

Please ensure that you file this electronic (.pdf only) transmittal in your records management system. The Regional Laboratory will now retain all of the original hardcopy documentation (e.g. COC[s] and the R7LIMS field sheet[s], etc.) according to our LSASD records management system.

Please contact us within 14 days of receipt of this package if you determine there is a need for any changes. Please complete the Online ASR Sample/Data Disposition and Customer Survey for this ASR as soon as possible. The process of disposing of the samples for this ASR will be initiated 30 days from the date of this transmittal unless an alternate release date is specified on the Online ASR Sample/Data Disposition and Customer Survey. It is critical that we receive your response in accordance to RCRA and the laboratory accreditation.

If you have any questions or concerns relating to this data package, contact our customer service line at 913-551-5295.

Summary of Project Information

05/10/2021

Project Manager: Kumud Pyakuryal Org: SEMD/AERR Phone: 913-551-7956

Project ID: KPKNE6DC QAPP Number: 2021068

Project Desc: Six Dry Cleaner sites

ASR Number: 8823

Location: Kearney State: Nebraska Program: Superfund

Site Name: Multi-Site - General Site ID: 07ZZ Site OU: 00

Purpose: Site Cleanup Support GPRA PRC: 000DD2

Pre-CERCLA site screens. GW samples for LDL VOA analysis.

PM (KP)/TT sampler submitted ASR noted that this is not part of a litigation hold

activity at this time.

GPRA/site code check ok per JE on 3/5/2021.

Explanation of Codes, Units and Qualifiers used on this report

Sample QC Codes: QC Codes identify the type of sample for quality control purpose. **Units:** Specific units in which results are reported.

__ = Field Sample ug/L = Micrograms per Liter

FB = Field Blank
FD = Field Duplicate

Data Qualifiers: Specific codes used in conjunction with data values to provide additional information on the quality of reported results, or used to explain the absence of a specific value.

(Blank) = Values have been reviewed and found acceptable for use.

UJ = The analyte was not detected at or above the reporting limit. The reporting limit is an estimate.

U = The analyte was not detected at or above the reporting limit.

Sample Information Summary

Project ID: KPKNE6DC **Project Desc:** Six Dry Cleaner sites

ASR Number: 8823

Sample QC No Code	Matrix	Location Description	External Sample No	Start Date	Start Time	End Date	End Time	Receipt Date
1	Water	TWS-3		04/20/2021	15:15			04/23/2021
2	Water	TWS-6		04/20/2021	15:45			04/23/2021
3	Water	TWS-7		04/20/2021	16:15			04/23/2021
4	Water	TWS-1		04/20/2021	16:50			04/23/2021
5	Water	TWS-2		04/20/2021	17:25			04/23/2021
5 - FD	Water	TWS-2		04/20/2021	17:25			04/23/2021
7	Water	TWS-8		04/21/2021	09:40			04/23/2021
8	Water	TWS-4		04/21/2021	10:15			04/23/2021
9	Water	TWS-5		04/21/2021	10:40			04/23/2021
10	Water	TWS-12		04/21/2021	11:20			04/23/2021
10 - FD	Water	TWS-12		04/21/2021	11:20			04/23/2021
12	Water	TWS-11		04/21/2021	12:00			04/23/2021
13	Water	TWS-10		04/21/2021	12:35			04/23/2021
14	Water	TWS-9		04/21/2021	13:05			04/23/2021
15	Water	TWS-14		04/21/2021	14:10			04/23/2021
16	Water	TWS-15		04/21/2021	14:55			04/23/2021
17	Water	TWS-13		04/21/2021	15:35			04/23/2021
18	Water	TWS-19		04/21/2021	16:35			04/23/2021
19	Water	TWS-20		04/21/2021	17:00			04/23/2021
20	Water	TWS-17		04/21/2021	17:30			04/23/2021
21	Water	TWS-18		04/21/2021	18:20			04/23/2021
22	Water	TWS-16		04/22/2021	08:00			04/23/2021
23	Water	TWS-22		04/22/2021	08:45			04/23/2021
24	Water	TWS-21		04/22/2021	09:20			04/23/2021
25	Water	Equipment Rinsate sample		04/22/2021	09:45			04/23/2021
28 - FB	Water	LDL VOA Field Blank		04/22/2021	08:25			04/23/2021
29 - FB	Water	LDL VOA Trip Blank		04/22/2021	09:55			04/23/2021

ASR Number: 8823 05/10/2021

Project Desc Six Dry Cleaner sites

Analysis **Comments About Results For This Analysis**

VOCs in Water by GC/MS for Low Detection Limits

Lab: Region 7 EPA Laboratory - Kansas City, Ks.

Method: EPA Region 7 RLAB Method 3230.13F

Samples:	1	2	3	4	5	5-FD	7
	8	9	10	10-FD	12	13	14
	15	16	17	18	19	20	21
	22-	23-	24-	25-	28-FB	29-FB	

Comments:

Project ID: KPKNE6DC

Due to calibration problems at the low end of the curve, the reporting limits for Methylene Chloride and Bromoform have been raised from 1 ug/L to 5 ug/L and 2 ug/L, respectively.

Bromoform was UJ-coded in all samples. This analyte was not found in the samples at or above the reporting limit, however, the reporting limit is an estimate (UJ-coded) due to the initial instrument calibration curve not meeting linearity specifications. reporting limit may be higher than the reported value.

Chloromethane was UJ-coded in all samples. This analyte was not found in the samples at or above the reporting limit, however, the reporting limit is an estimate (UJ-coded) due to the continuing calibration check and laboratory control sample not meeting accuracy specifications. The recovery was about 65 - 70%, and the lower limit was 70%. The actual reporting limit for this analyte may be higher than the reported value.

Benzene, Carbon Tetrachloride, Chloroform, Cyclohexane, 1,3-Dichlorbenzene, Ethyl Benzene and Methylcyclohexane were UJ-coded in sample 1. These analytes were not found in the sample at or above the reporting limit, however, the reporting limit is an estimate (UJ-coded) due to poor precision obtained for these analytes in the laboratory matrix spike and matrix spike duplicate. The actual reporting limit for these analytes may be higher than the reported values.

Bromodichloromethane and Chloromethane were UJ-coded in sample 23. These analytes were not found in the sample at or above the reporting limit, however, the reporting limit is an estimate (UJ-coded) due to low recovery (89% and 63%, respectively, with lower limits of 91% and 71%, respectively) of these analytes in the laboratory matrix spike. The actual reporting limit for this analyte may be higher than the reported value.

RLAB Approved Sample Analysis Results 05/10/2021

Project ID: KPKNE6DC **Project Desc:** Six Dry Cleaner sites

ASR Number: 8823

Analysis/ Analyte	Units	1	2	3	4
1 VOCs in Water by GC/MS for Low Detection	Limits				
Acetone	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Benzene	ug/L	1.0 UJ	1.0 U	1.0 U	1.0 U
Bromodichloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	ug/L	2.0 UJ	2.0 UJ	2.0 UJ	2.0 UJ
Bromomethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
2-Butanone	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Carbon Disulfide	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Carbon Tetrachloride	ug/L	1.0 UJ	1.0 U	1.0 U	1.0 U
Chlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform	ug/L	1.0 UJ	1.0 U	1.0 U	1.0 U
Chloromethane	ug/L	1.0 UJ	1.0 UJ	1.0 UJ	1.0 UJ
Cyclohexane	ug/L	1.0 UJ	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-Chloropropane	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Dibromochloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromoethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	ug/L	1.0 UJ	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Ethyl Benzene	ug/L	1.0 UJ	1.0 U	1.0 U	1.0 U
2-Hexanone	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Isopropylbenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Methyl Acetate	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Methyl tert-butyl ether	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Methylcyclohexane	ug/L	1.0 UJ	1.0 U	1.0 U	1.0 U
Methylene Chloride	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
4-Methyl-2-Pentanone	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Naphthalene	ug/L	2.0 U	2.0 U	2.0 U	2.0 U
Styrene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2,3-Trichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,1,1-Trichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U

ASR Number: 8823 RLAB Approved Sample Analysis Results

Project ID: KPKNE6DC

Project Desc: Six Dry Cleaner sites

Analysis/ Analyte	Units	1	2	3	4
Trichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Trichlorofluoromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichlorotrifluoroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl Chloride	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
m and/or p-Xylene	ug/L	2.0 U	2.0 U	2.0 U	2.0 U
o-Xylene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U

05/10/2021

RLAB Approved Sample Analysis Results 05/10/2021

Project ID: KPKNE6DC **Project Desc:** Six Dry Cleaner sites

ASR Number: 8823

Analysis/ Analyte	Units	5	5-FD	7	8
1 VOCs in Water by GC/MS for Low De	tection Limits				
Acetone	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Benzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	ug/L	2.0 UJ	2.0 UJ	2.0 UJ	2.0 UJ
Bromomethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
2-Butanone	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Carbon Disulfide	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Carbon Tetrachloride	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane	ug/L	1.0 UJ	1.0 UJ	1.0 UJ	1.0 UJ
Cyclohexane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-Chloropropane	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Dibromochloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromoethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Ethyl Benzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
2-Hexanone	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Isopropylbenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Methyl Acetate	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Methyl tert-butyl ether	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Methylcyclohexane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Methylene Chloride	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
4-Methyl-2-Pentanone	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Naphthalene	ug/L	2.0 U	2.0 U	2.0 U	2.0 U
Styrene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2,3-Trichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,1,1-Trichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U

ASR Number: 8823

RLAB Approved Sample Analysis Results 05/10/2021

Project ID: KPKNE6DC **Project Desc:** Six Dry Cleaner sites

Analysis/ Analyte	Units	5	5-FD	7	8
Trichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Trichlorofluoromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichlorotrifluoroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl Chloride	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
m and/or p-Xylene	ug/L	2.0 U	2.0 U	2.0 U	2.0 U
o-Xylene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U

RLAB Approved Sample Analysis Results 05/10/2021

Project ID: KPKNE6DC **Project Desc:** Six Dry Cleaner sites

ASR Number: 8823

Analysis/ Analyte	Units	9	10	10-FD	12
1 VOCs in Water by GC/MS for Low Detection	Limits				
Acetone	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Benzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	ug/L	2.0 UJ	2.0 UJ	2.0 UJ	2.0 UJ
Bromomethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
2-Butanone	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Carbon Disulfide	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Carbon Tetrachloride	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform	ug/L	1.0 U	2.8	2.8	11
Chloromethane	ug/L	1.0 UJ	1.0 UJ	1.0 UJ	1.0 UJ
Cyclohexane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-Chloropropane	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Dibromochloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromoethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Ethyl Benzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
2-Hexanone	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Isopropylbenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Methyl Acetate	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Methyl tert-butyl ether	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Methylcyclohexane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Methylene Chloride	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
4-Methyl-2-Pentanone	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Naphthalene	ug/L	2.0 U	2.0 U	2.0 U	2.0 U
Styrene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2,3-Trichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,1,1-Trichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U

RLAB Approved Sample Analysis Results

05/10/2021

Project ID: KPKNE6DC

Project Desc: Six Dry Cleaner sites

Analysis/ Analyte	Units	9	10	10-FD	12
Trichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Trichlorofluoromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichlorotrifluoroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl Chloride	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
m and/or p-Xylene	ug/L	2.0 U	2.0 U	2.0 U	2.0 U
o-Xylene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U

RLAB Approved Sample Analysis Results 05/10/2021

Project ID: KPKNE6DC Project Desc: Six Dry Cleaner sites

ASR Number: 8823

Naphthalene Styrene

Toluene

Tetrachloroethene

1,1,2,2-Tetrachloroethane

1,2,3-Trichlorobenzene 1,2,4-Trichlorobenzene 1,1,1-Trichloroethane 1,1,2-Trichloroethane

Project ID: KPKNE6DC	Project Desc: Six Dry Cle	aner sites			
Analysis/ Analyte	Units	13	14	15	16
1 VOCs in Water by GC/MS fo	r Low Detection Limits				
Acetone	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Benzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	ug/L	2.0 UJ	2.0 UJ	2.0 UJ	2.0 UJ
Bromomethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
2-Butanone	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Carbon Disulfide	ug/L	1.0 U	1.0 U	2.5	2.8
Carbon Tetrachloride	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform	ug/L	6.8	5.9	1.0 U	3.0
Chloromethane	ug/L	1.0 UJ	1.0 UJ	1.0 UJ	1.0 UJ
Cyclohexane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-Chloropropane	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Dibromochloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromoethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Ethyl Benzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
2-Hexanone	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Isopropylbenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Methyl Acetate	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Methyl tert-butyl ether	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Methylcyclohexane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Methylene Chloride	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
4-Methyl-2-Pentanone	ug/L	5.0 U	5.0 U	5.0 U	5.0 U

ug/L	1.0 U	1.0 U	1.0 U	1.0 U
ug/L	1.0 U	1.0 U	1.0 U	1.0 U
ug/L	1.0 U	1.0 U	1.0 U	1.0 U
ug/L	1.0 U	1.0 U	1.0 U	1.0 U
ug/L	1.0 U	1.0 U	1.0 U	1.0 U
ug/L	1.0 U	1.0 U	1.0 U	1.0 U
ug/L	1.0 U	1.0 U	1.0 U	1.0 U
ug/L	1.0 U	1.0 U	1.0 U	1.0 U
ug/L	1.0 U	1.0 U	1.0 U	1.0 U
ug/L	1.0 U	1.0 U	1.0 U	1.0 U
ug/L	1.0 U	1.0 U	1.0 U	1.0 U
ug/L	1.0 U	1.0 U	1.0 U	1.0 U
ug/L	1.0 U	1.0 U	1.0 U	1.0 U
ug/L	1.0 U	1.0 U	1.0 U	1.0 U
ug/L	5.0 U	5.0 U	5.0 U	5.0 U
ug/L	1.0 U	1.0 U	1.0 U	1.0 U
ug/L	5.0 U	5.0 U	5.0 U	5.0 U
ug/L	1.0 U	1.0 U	1.0 U	1.0 U
ug/L	1.0 U	1.0 U	1.0 U	1.0 U
ug/L	5.0 U	5.0 U	5.0 U	5.0 U
ug/L	5.0 U	5.0 U	5.0 U	5.0 U
ug/L	2.0 U	2.0 U	2.0 U	2.0 U
ug/L	1.0 U	1.0 U	1.0 U	1.0 U
ug/L	1.0 U	1.0 U	1.0 U	1.0 U
ug/L	1.0 U	1.0 U	1.0 U	1.0 U
ug/L	1.0 U	1.0 U	1.0 U	1.0 U
ug/L	1.0 U	1.0 U	1.0 U	1.0 U
ug/L	1.0 U	1.0 U	1.0 U	1.0 U
ug/L	1.0 U	1.0 U	1.0 U	1.0 U
ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Page 11 of 18				
-			Page 11 of 20	

RLAB Approved Sample Analysis Results

05/10/2021

Project ID: KPKNE6DC **Project Desc:** Six Dry Cleaner sites

Analysis/ Analyte	Units	13	14	15	16	
Trichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	
Trichlorofluoromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	
1,1,2-Trichlorotrifluoroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	
Vinyl Chloride	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	
m and/or p-Xylene	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	
o-Xylene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	

RLAB Approved Sample Analysis Results 05/10/2021

Project ID: KPKNE6DC **Project Desc:** Six Dry Cleaner sites

ASR Number: 8823

Analysis/ Analyte	Units	17	18	19	20
1 VOCs in Water by GC/MS for Low Detection	Limits				
Acetone	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Benzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	ug/L	2.0 UJ	2.0 UJ	2.0 UJ	2.0 UJ
Bromomethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
2-Butanone	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Carbon Disulfide	ug/L	1.5	1.0 U	1.0 U	1.0 U
Carbon Tetrachloride	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform	ug/L	1.8	1.0 U	1.0 U	1.4
Chloromethane	ug/L	1.0 UJ	1.0 UJ	1.0 UJ	1.0 UJ
Cyclohexane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-Chloropropane	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Dibromochloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromoethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	ug/L	1.0 U	2.4	1.2	1.0 U
trans-1,2-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Ethyl Benzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
2-Hexanone	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Isopropylbenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Methyl Acetate	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Methyl tert-butyl ether	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Methylcyclohexane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Methylene Chloride	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
4-Methyl-2-Pentanone	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Naphthalene	ug/L	2.0 U	2.0 U	2.0 U	2.0 U
Styrene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	ug/L	1.0 U	15	62	1.0 U
Toluene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2,3-Trichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,1,1-Trichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U

RLAB Approved Sample Analysis Results

05/10/2021

Project ID: KPKNE6DC

Project Desc: Six Dry Cleaner sites

Analysis/ Analyte	Units	17	18	19	20
Trichloroethene	ug/L	1.0 U	1.0 U	1.2	1.0 U
Trichlorofluoromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichlorotrifluoroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl Chloride	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
m and/or p-Xylene	ug/L	2.0 U	2.0 U	2.0 U	2.0 U
o-Xylene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U

RLAB Approved Sample Analysis Results 05/10/2021

Project ID: KPKNE6DC **Project Desc:** Six Dry Cleaner sites

ASR Number: 8823

Analysis/ Analyte	Units	21	22	23	24
1 VOCs in Water by GC/MS for Low Detec	tion Limits				
Acetone	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Benzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	ug/L	1.0 U	1.0 U	1.0 UJ	1.0 U
Bromoform	ug/L	2.0 UJ	2.0 UJ	2.0 UJ	2.0 UJ
Bromomethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
2-Butanone	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Carbon Disulfide	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Carbon Tetrachloride	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform	ug/L	5.2	1.0 U	1.0 U	1.0 U
Chloromethane	ug/L	1.0 UJ	1.0 UJ	1.0 UJ	1.0 UJ
Cyclohexane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-Chloropropane	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Dibromochloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromoethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Ethyl Benzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
2-Hexanone	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Isopropylbenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Methyl Acetate	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Methyl tert-butyl ether	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Methylcyclohexane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Methylene Chloride	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
4-Methyl-2-Pentanone	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Naphthalene	ug/L	2.0 U	2.0 U	2.0 U	2.0 U
Styrene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2,3-Trichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,1,1-Trichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U

RLAB Approved Sample Analysis Results

05/10/2021

Project ID: KPKNE6DC **Project Desc:** Six Dry Cleaner sites

Analysis/ Analyte	Units	21	22	23	24
Trichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Trichlorofluoromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichlorotrifluoroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl Chloride	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
m and/or p-Xylene	ug/L	2.0 U	2.0 U	2.0 U	2.0 U
o-Xylene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U

RLAB Approved Sample Analysis Results

Project ID: KPKNE6DC **Project Desc:** Six Dry Cleaner sites

ASR Number: 8823

Analysis/ Analyte	Units	25	28-FB	29-FB
1 VOCs in Water by GC/MS for Low Detect	ion Limits			
Acetone	ug/L	5.0 U	5.0 U	5.0 U
Benzene	ug/L	1.0 U	1.0 U	1.0 U
Bromodichloromethane	ug/L	1.0 U	1.0 U	1.0 U
Bromoform	ug/L	2.0 UJ	2.0 UJ	2.0 UJ
Bromomethane	ug/L	1.0 U	1.0 U	1.0 U
2-Butanone	ug/L	5.0 U	5.0 U	5.0 U
Carbon Disulfide	ug/L	1.0 U	1.0 U	1.0 U
Carbon Tetrachloride	ug/L	1.0 U	1.0 U	1.0 U
Chlorobenzene	ug/L	1.0 U	1.0 U	1.0 U
Chloroethane	ug/L	1.0 U	1.0 U	1.0 U
Chloroform	ug/L	1.0 U	1.0	1.0 U
Chloromethane	ug/L	1.0 UJ	1.0 UJ	1.0 UJ
Cyclohexane	ug/L	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-Chloropropane	ug/L	5.0 U	5.0 U	5.0 U
Dibromochloromethane	ug/L	1.0 U	1.0 U	1.0 U
1,2-Dibromoethane	ug/L	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane	ug/L	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	ug/L	1.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	1.0 U
Ethyl Benzene	ug/L	1.0 U	1.0 U	1.0 U
2-Hexanone	ug/L	5.0 U	5.0 U	5.0 U
Isopropylbenzene	ug/L	1.0 U	1.0 U	1.0 U
Methyl Acetate	ug/L	5.0 U	5.0 U	5.0 U
Methyl tert-butyl ether	ug/L	1.0 U	1.0 U	1.0 U
Methylcyclohexane	ug/L	1.0 U	1.0 U	1.0 U
Methylene Chloride	ug/L	5.0 U	5.0 U	5.0 U
4-Methyl-2-Pentanone	ug/L	5.0 U	5.0 U	5.0 U
Naphthalene	ug/L	2.0 U	2.0 U	2.0 U
Styrene	ug/L	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	ug/L	1.0 U	1.0 U	1.0 U
Tetrachloroethene	ug/L	1.0 U	1.0 U	1.0 U
Toluene	ug/L	1.0 U	1.0 U	1.0 U
1,2,3-Trichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U
1,1,1-Trichloroethane	ug/L	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	ug/L	1.0 U	1.0 U	1.0 U

RLAB Approved Sample Analysis Results

05/10/2021

Project ID: KPKNE6DC

Project Desc: Six Dry Cleaner sites

Units	25	28-FB	29-FB
ug/L	1.0 U	1.0 U	1.0 U
ug/L	1.0 U	1.0 U	1.0 U
ug/L	1.0 U	1.0 U	1.0 U
ug/L	1.0 U	1.0 U	1.0 U
ug/L	2.0 U	2.0 U	2.0 U
ug/L	1.0 U	1.0 U	1.0 U
	ug/L ug/L ug/L ug/L ug/L	ug/L 1.0 U ug/L 1.0 U ug/L 1.0 U ug/L 1.0 U ug/L 2.0 U	ug/L 1.0 U 1

CHAIN OF CUSTODY RECORD
ENVIRONMENTAL PROTECTION AGENCY REGION VII.

EPA PROJECT MANAGER Kumud Pyakurya			SITE OR	SAMPLING EVE LA Scree	nt ns - Kear	ney				DATE		20-22 2021 DAY VEM	\$HEET 1 of 2
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8823-10-FD					1	1						Dupli	cate
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CHAIN OF CUSTODY RECORD ENVIRONMENTAL PROTECTION AGENCY REGION VII

EPA PROJECT MANAGER Kumud Pyakurya				SAMPLING EVE LA Scree		nev.	D	- C	مما			0-22 2021		
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APPENDIX D

PHOTO LOG



TETRA TECH PROJECT NO.	DESCRIPTION	This photo shows the site.	1
103X903019F0076	CLIENT	U.S. Environmental Protection Agency Region 7	Date
Direction: North	PHOTOGRAPHER	Thomas Kaley	4/22/2021



TETRA TECH PROJECT NO.	DESCRIPTION	This photo shows the property adjacent to and west of the site.	2
103X903019F0076	CLIENT	U.S. Environmental Protection Agency Region 7	Date
Direction: North	PHOTOGRAPHER	Thomas Kaley	4/22/2021



TETRA TECH PROJECT NO.	DESCRIPTION	This photo shows the property adjacent to and east of the site.	3
103X903019F0076	CLIENT	U.S. Environmental Protection Agency Region 7	Date
Direction: East	PHOTOGRAPHER	Thomas Kaley	4/22/2021



TETRA TECH PROJECT NO.	DESCRIPTION	This photo shows the property adjacent to and north of the site.	4
103X903019F0076	CLIENT	U.S. Environmental Protection Agency Region 7	Date
Direction: West	PHOTOGRAPHER	Thomas Kaley	4/22/2021



TETRA TECH PROJECT NO.	DESCRIPTION	This photo shows the property adjacent to and south of the site.	5
103X903019F0076	CLIENT	U.S. Environmental Protection Agency Region 7	Date
Direction: South	PHOTOGRAPHER	Thomas Kaley	4/22/2021



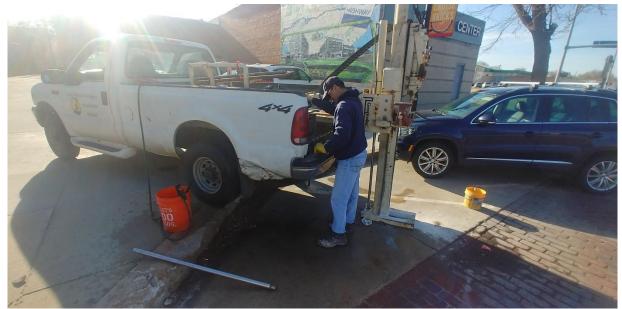
TETRA TECH PROJECT NO.	DESCRIPTION	This photo shows Seagull personnel patching the concrete at TWS-19.	6
103X903019F0076	CLIENT	U.S. Environmental Protection Agency Region 7	Date
Direction: Southeast	PHOTOGRAPHER	Thomas Kaley	4/21/2021



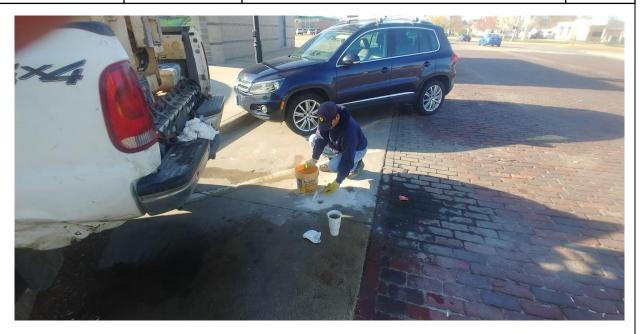
TETRA TECH PROJECT NO.	DESCRIPTION	This photo shows Seagull personnel drilling TWS-20.	7					
103X903019F0076	CLIENT	U.S. Environmental Protection Agency Region 7	Date					
Direction: Northeast	PHOTOGRAPHER	Thomas Kaley	4/21/2021					



TETRA TECH PROJECT NO.	DESCRIPTION	This photo shows Seagull personnel finishing patching of the concrete at TWS-17.	8
103X903019F0076	CLIENT	U.S. Environmental Protection Agency Region 7	Date
Direction: N/A	PHOTOGRAPHER	Thomas Kaley	4/21/2021



	THE RESIDENCE OF THE PARTY OF T		
TETRA TECH PROJECT NO.	DESCRIPTION	This photo shows Seagull personnel drilling at the new location for TWS-18.	9
103X903019F0076	CLIENT	U.S. Environmental Protection Agency Region 7	Date
Direction: Northwest	PHOTOGRAPHER	Thomas Kaley	4/21/2021



TETRA TECH PROJECT NO.	DESCRIPTION	This photo shows Seagull personnel patching concrete at TWS-18.	10
103X903019F0076	CLIENT	U.S. Environmental Protection Agency Region 7	Date
Direction: North	PHOTOGRAPHER	Thomas Kaley	4/21/2021

APPENDIX E PRE-CERCLA CHECKLIST/DECISION FORM

This form is used in conjunction with a site map and any additional information required by the EPA Region to document completion of a Pre-CERCLA Screening (PCS). The form includes a decision on whether a site should be added to the Superfund program's active site inventory for further investigation. Select from available dropdown values for fields marked with an asterisk *.

Region: 7 St	tate/Territory: NE	Tribe: NA		none assigne	ed
		Click here spreadshe	for the <u>EPA Tribe Entity M</u> et.	lapping EPA ID No	. (If Available)
Site Name: Other Site Name(s):	2400 Central Avenue	- former Quality Clea	ners		
Site Location:	2400 Central Avenue	- former Quality Clea	ners		
			(Street)		00047
Congressional District	Kearney (City)		Buffalo (County)	NE (State / Terr)	68847 ₊ (Zip+4)
If no street address	s is available				
		(Township-Rang	ge)	(Section	on)
Checklist Preparers Thomas Kaley	:			06/15/2021	
Thomas Raley	(Name	/ Title)		(Dat	e)
Tetra Tech, Inc.				(816) 412-1744	
415 Oak Street	(Organi	zation)		(Phor Thomas.Kaley@To	
	(Stree	et)	I - I	(Ema	ail)
Kansas City	(City)		Jackson (County)	MO (State / Terr)	64106 + (Zip+4)
	/Mailing Address: tition for Preliminary Asses	ssment? No	If Yes, Petition	Date (mm/dd/yyyy):	
RCRA Subtitle C S	ite Status: Is site in RCRAI	nfo? No		o Handler ID #:	
Ownership Type*:	Private			Alnfo ID #(s): NED035	054931
Site Type*: Other			State ID #(s):		
Site Sub-Type*: D	ry-Cleaning Operations ((former)	Other ID #(s):		
Federal Facility?	No	Fe	ederal Facility Owner*:	(Make selection)	
Formerly Used De	fense Site (FUDS)? No	Fe	ederal Facility Operator	*: (Make selection)	
Federal Facility Do	ocket? No	If Yes, FF [Docket Listing Date (mi	m/dd/yyyy):	
		Federal Fa	cility Docket Reporting	Mechanism*: (Make	selection)
Native American I	nterest? No	If Yes, list	Tribe:	STREET STREET	
		Additional	Tribe (s):		

Site Description

Use this section to briefly describe site background and conditions if known or (easily) available, such as: operational history; physical setting and land use; site surface description, soils, geology and hydrogeology; source and waste characteristics; hazardous substances/contaminants of concern; historical releases, previous investigations and cleanup activities; previous regulatory actions, including permitting and enforcement actions; institutional controls; and community interest.

Insert text here (if text exceeds size of text box, view all text on page 5).* The site is at 2400 Central Avenue in Kearney, Nebraska, and encompasses approximately 0.26 acres. Historical Sanborn maps show that in 1924, the site hosted a filling station and auto repair shop. Review of historical city directories identified the site hosted dry cleaning services under the name "One-Hour Martinizing" beginning in 1968, briefly changing the name to "Quality Cleaners" from '82-'84. The site returned to the previous name of "One-Hour Martinizing" starting in 1985 until 1991, when the name was changed again to "Quality Cleaners" until the apparent end of dry cleaning operations in 2003. State records document the removal of two small underground storage tanks in 1990 from the site. The documents mention the possibility of one other tank remaining on property. It is unclear from the documents if the tanks were related to the site's previous use as a filling station or dry cleaning operations.

Geospatial Information

Latitude:	+ 40.699543	3

Decimal Degree North (e.g., +38.859156)

Longitude: - 99.082098

Decimal Degree West (e.g., -77.036783)

Provide 4 significant digits at a minimum, more if your collection method generates them.

Except for certain territories in the Pacific Ocean, all sites in U.S. states and territories are located within the northern and western hemispheres and will have a positive latitude sign and negative longitude sign. The coordinate signs should be changed as necessary for sites in the southern and/or eastern hemispheres.

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POINT-SELECTION CONSIDERATIONS

- Often the best point is a feature associated with the environmental release or that identifies the site visually.
- Use the curb cut of the entrance to the site if there is a clear primary entrance and it is a good identifier for the overall location.
- The approximate center of the site (a guess at the centroid) is useful for large-area sites or where there are no appropriate distinguishing features.
- Use the geocoded address if that is the only or best option available, but if possible use something more representative for sites larger than 50 acres.

Collection Date (mm/dd/yyyy): 06/15/2021

Complete this checklist to help determine if a site should be added to the Superfund Active site inventory. See Section 3.6 of the PCS guidance for additional information.		YES	NO	Unknown
1.	An initial search for the site in EPA's Superfund active, archive and non-site inventories should be performed prior to starting a PCS. Is this a new site that does not already exist in these site inventories?	×		
2.	Is there evidence of an actual release or a potential to release?	X		
3.	Are there possible targets that could be impacted by a release of contamination at the site?	×		
4.	Is there documentation indicating that a target has been exposed to a hazardous substance released from the site?		×	. 🗆
5.	Is the release of a naturally occurring substance in its unaltered form, or is it altered solely through naturally occurring processes or phenomena, from a location where it is naturally found?		×	
6.	Is the release from products which are part of the structure of, and result in exposure within, residential buildings or business or community structures?		×	
7.	If there has been a release into a public or private drinking water supply, is it due to deterioration of the system through ordinary use?		×	
8.	Are the hazardous substances possibly released at the site, or is the release itself, excluded from being addressed under CERCLA?		×	
9.	Is the site being addressed under RCRA corrective action or by the Nuclear Regulatory Commission?	П	×	
10	. Is another federal, state, tribe or local government environmental cleanup program other than site assessment actively involved with the site (e.g., state voluntary cleanup program)?	П	×	
11	. Is there sufficient documentation or evidence that demonstrates there is no likelihood of a significant release that could cause adverse environmental or human health impacts?		×	
12	Are there other site-specific situations or factors that warrant further CERCLA remedial/integrated assessment or response?		×	

Preparer's Recommendation:	ntory.				
☐ Do not add site to the Superfund active sit	e inventory.				
Please explain recommendation below:					
PCS Summary and Decision Ration	ale				
Use this section to summarize PCS findings and support the decision to add or not add the site to the Superfund active site inventory for further investigation. Information does not need to be specific but, where known, can include key factors such as source and waste characteristics (e.g., drums, contaminated soil); evidence of release or potential release; threatened targets (e.g., drinking water wells); key sampling results (if available); CERCLA eligibility; involvement of other cleanup programs; and other supporting factors.					
Insert text here (if text exceeds size of text box, view all text on page 6): Based on this documented length of dry cleaning operations conducted at the Martinizing and Quality Cleaners), the use of PCE and TCE was likely. Groun temporary wells near the former dry cleaner detected PCE at 15 µg/L and 62 contamination level (MCL) for groundwater of 5 µg/L. TCE and cis-1,2-DCE v near the former dry cleaner site at concentrations below their respective MCL operations and detection of chlorinated solvents in groundwater above federa appears warranted.	site (35 years under the names 1-Hour ndwater samples collected from µg/L, above the federal maximum were also detected in samples collected s. Based on the length of dry cleaning I MCL, further CERCLA assessment				
Site Assessor: Thomas Kaley	06/15/2021				
Print Name/Signature	Date				
EPA Regional Review and Pre-CERCLA Screening Decision					
Add site to the Superfund active site inventory for completion of a:					
☐ Standard/full preliminary assessment (PA)					
Abbreviated preliminary assessment (APA)					
☐ Combined preliminary assessment/site inspection (PA/SI) ☐ Integrated removal assessment and preliminary assessment ☐ Integrated removal assessment and combined PA/SI ☐ Other:					
Do not add site to the Superfund active site inventory. Site is:					
 Not a valid site or incident Being addressed by EPA's removal program Being addressed by a state cleanup program Being addressed by a tribal cleanup program 					
 □ Being addressed under the Resource Conservation and Recovery Act □ Being addressed by the Nuclear Regulatory Commission □ Other: 					
EPA Regional Reviewer:					
Print Name/Signature	Date				

Site Description

(All text as entered on page 2)

The site is at 2400 Central Avenue in Kearney, Nebraska, and encompasses approximately 0.26 acres. Historical Sanborn maps show that in 1924, the site hosted a filling station and auto repair shop. Review of historical city directories identified the site hosted dry cleaning services under the name "One-Hour Martinizing" beginning in 1968, briefly changing the name to "Quality Cleaners" from '82-'84. The site returned to the previous name of "One-Hour Martinizing" starting in 1985 until 1991, when the name was changed again to "Quality Cleaners" until the apparent end of dry cleaning operations in 2003. State records document the removal of two small underground storage tanks in 1990 from the site. The documents mention the possibility of one other tank remaining on property. It is unclear from the documents if the tanks were related to the site's previous use as a filling station or dry cleaning operations.

PCS Summary and Decision Rationale

(All text as entered on page 4)

Based on this documented length of dry cleaning operations conducted at the site (35 years under the names 1-Hour Martinizing and Quality Cleaners), the use of PCE and TCE was likely. Groundwater samples collected from temporary wells near the former dry cleaner detected PCE at 15 μ g/L and 62 μ g/L, above the federal maximum contamination level (MCL) for groundwater of 5 μ g/L. TCE and cis-1,2-DCE were also detected in samples collected near the former dry cleaner site at concentrations below their respective MCLs. Based on the length of dry cleaning operations and detection of chlorinated solvents in groundwater above federal MCL, further CERCLA assessment appears warranted.